

142661



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

KCPA-97-2576-12

DOT-E 11892  
(SECOND REVISION)

400 Seventh St., S.W.  
Washington, D.C. 20590

AUG 29 2001

|                                |
|--------------------------------|
| EXPIRATION DATE: July 31, 2003 |
|--------------------------------|

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Van Hool NV, B-2500 Lier Koningshooikt Belgium  
(U.S. Agent: Gold Inspection Service, Inc.,  
Kingwood, Texas)
2. PURPOSE AND LIMITATIONS:
  - a. This exemption authorizes the manufacture, marking and sale of certain DOT Specification 51 steel portable tanks manufactured in accordance with Section VIII, Division 2 of the ASME Code instead of Division 1. The portable tanks, mounted in ISO frames, are authorized for the transportation in commerce of Division 2.1 and 2.2 materials. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 178.245-1(a) in that tanks are designed, constructed, certified and stamped in accordance with Section VIII, Division 2 of the ASME Code.
5. BASIS: This exemption is based on the application of Van Hool NV, dated July 17, 2003, submitted in accordance with § 107.109 and additional information dated August 3, 2001.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

| Hazardous materials description<br>-- proper shipping name                               | Hazard<br>Class/<br>Division | Identi-<br>fication<br>Number | Packing<br>Group |
|--|------------------------------|-------------------------------|------------------|
| Division 2.1 and 2.2 materials<br>authorized for DOT Specification<br>51 portable tanks. | 2.1<br>2.2                   | Various                       | N/A              |

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7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings authorized are three designs of DOT Specification 51 steel portable tanks that are designed, constructed, certified and stamped in accordance with Section VIII, Division 2 of the ASME Code, including the ASME Code "U2" stamp. Each portable tank must be constructed in accordance with Van Hool drawings TD 1865 Sheets 1, 2, 3, and 4; and TD 1866, and with specifications and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in compliance with the following provisions:

i. Code - All tanks must comply with DOT Specification 51 in all respects except the design code. This exemption authorizes the use of Section VIII, Division 2, of the ASME Code as the design code.

**NOTE:** Pending the resolution of ASME Code Case BC97-379, the "U2" stamp need not be applied to the ASME name plate on each tank provided the following documentation is submitted to OHMEA: (1) a statement from the ASME Inspector attesting the tank complies with Division 2 of Section VIII of the ASME Code except for the stamping and (2) a completed ASME A-1 form for each tank.

ii. Material - SA612-N carbon steel

iii. Tank Dimensions and Design Criteria -

| Tank Design | Water Capacity Gallons | Outside Diameter Inches | Length Inches | Min Shell Thickness Inches | Min Head Thickness Inches |
|-------------|------------------------|-------------------------|---------------|----------------------------|---------------------------|
| VH17/23.1   | 4500                   | 81.1                    | 225.79        | 0.540                      | 0.662                     |
| VH17/25.2   | 4500                   | 81.1                    | 225.79        | 0.588                      | 0.713                     |
| VH17/31.6   | 4500                   | 81.1                    | 225.79        | 0.736                      | 0.866                     |

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## iv. Pressure and Venting Data -

| Tank Design | Design Pressure<br>(Note 1)<br>psig | Test Pressure<br>psig | Surface Area<br>Sq Ft | PRV Setting<br>psi | Total Relief Capacity<br>(Note 2)<br>SCFH |
|-------------|-------------------------------------|-----------------------|-----------------------|--------------------|---|
| VH17/23.1   | 335                                 | 503                   | 420                   | 368                | 1,463,640                                 |
| VH17/25.2   | 365                                 | 550                   | 420                   | 400                | 1,539,660                                 |
| VH17/31.6   | 458                                 | 687                   | 420                   | 504                | 1,987,080                                 |

- Notes:
- (1) Design pressure means "Maximum Allowable Working Pressure" as used in the ASME Code.
  - (2) The venting capacity requirement for each material must be determined by the flow formulas contained in the Compressed Gas Association (CGA) Pamphlet S-1.2. For each tank design, two 3-inch diameter spring loaded safety relief valves, outboard and in series with a single rupture disc set at 110% of the design pressure must be provided.

## v. Design Weights -

| Tank Design | Design Specific Gravity | Maximum Gross Weight | Tare Weight | Maximum Net Weight | Design Temperature Range |
|-------------|-------------------------|----------------------|-------------|--------------------|--------------------------|
| VH17/23.1   | 1.60                    | 74,956#              | 14,950#     | 60,006#            | -40°C to 50°C            |
| VH17/25.2   | 1.58                    | 74,956#              | 15,750#     | 59,206#            | -40°C to 50°C            |
| VH17/31.6   | 1.52                    | 74,956#              | 18,140#     | 56,816#            | -40°C to 50°C            |

vi. Weld Joint Efficiency - 1.0  
Weld joints must be 100% tested by non-destructive method as authorized by ASME Code.

vii. Corrosion Allowance - 0.0

viii. G-Loadings: Vertical down - 2; Vertical up - 2  
Longitudinal - 2; Transverse - 2

ix. Openings - The following are provided on each tank:

- One (1) 20" for the manway on front head
- Two (2) 2" for the liquid and vapor lines on front head
- One (1) 3" for the pressure relief system on top
- One (1) 3/4" for the thermowell on front head
- One (1) 1/4" for the pressure gauge on front head

**NOTE:** Each bottom outlet valve must be provided with a shear section that meets the requirements of 49 CFR 178.337-12.

x. Insulation - Tanks may be provided with a sunshield (optional).

xi. Baffles - Optional.

b. TESTING -

- i. Hydrostatic test certificates for each tank must be maintained by the owner and made available upon request to any representative of the DOT.
- ii. Each portable tank must be retested and inspected as specified for DOT Specification 51 portable tanks in § 173.32(e).

c. OPERATIONAL CONTROLS -

- i. The pressure produced by the lading and any gas padding at 50°C may not exceed the design pressure of the portable tank.
- ii. The tank must be filled by weight in accordance with the provisions of § 173.315.
- iii. Each tank must be visually inspected prior to shipment. Any unsafe condition must be corrected prior to the tank's use.

8. SPECIAL PROVISIONS:

- a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

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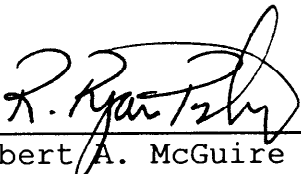
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued in Washington, D.C.



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*fr* Robert A. McGuire  
Associate Administrator  
for Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: sln